

Cycles in the Cards



Northern Arizona University, Cline Library, Special Collections and Archives



Overview

Objective – Explore the ideas of “life” cycle and transformation inherent in the scientific concept of stellar evolution, and the essential “properties” of the four sacred directions as told in a Navajo creation story, *Da’hadiniisá / The Beginning*.

Age Range – This activity is designed for older, middle and high school aged children, and adults.

Materials Needed – Two sets of cards – one “Star Cycle” set (one set of four cards - provided), and one “Navajo” set (eight sets of 4 each, and two sets of two each for a total of 36 - provided); background information for the facilitator (provided).

Set Up – This activity can be set up with one long or one round table and chairs. The interactions are optimized when small groups of 5 or 6 play together.

Estimated Time – 40 - 45 minutes; approximately one class period if used in a classroom.

Facilitator or Teacher Pre-Work

Before conducting the activity, read the provided scientific background information and Navajo story “The Beginning.” CUT OUT ALL THE CARDS (laminating them is recommended), and organize them into piles of four. Consider working with a co-facilitator or another teacher. The activity works best when scientific and Navajo cultural expertise work together. Be advised that the Navajo story contains many Navajo words, and working with a native speaker may enhance the experience greatly. If you are working in a Community Event with parents and grandparents, it is wonderful to involve them and draw out their own personal knowledge as part of the experience.



Community Night Event – Field Test in Cameron, AZ

The object of the “game” is to learn the stories while working with the cards. First you will work through the Star Cycle cards, put them aside, then work through the Navajo card sets. As you go through the Navajo story (which is provided in sections to match the cards, as well as in its entirety), the players will place the cards in a pattern on the table that ultimately will resemble a “+”. Then you will return to the Star Cycle cards and overlap them onto the Navajo cards that you’ve placed on the table.

From where you will sit to conduct the activity, determine which wall of the room faces East, which South, which West, and which North. This will be important as you place the cards during the activity.

How To

Guidelines for Facilitating the Activity – Assemble a group and briefly show them the card sets. Tell them they're going to be working with the cards to explore both the scientific concept of the star cycle, and Navajo creation stories. Ask about their concept of life – when they think about life, what shape comes to mind? Square? Triangle? Circle? Accept all answers. Tell them they're going to explore this concept with the cards and through the stories.

PART ONE - The Star Cycle Cards

Begin – Display the **4 Star Cycle Cards** in a row on the table. Tell the players that these images represent four stages in the life cycle of a star – pre-formation, formation, maturity, and death/dying. Ask the players to describe what they are seeing in each of the images. Answers might include: clouds, gas, color, energy, stars, circles, forming, coming together, breaking apart, exploding, movement, etc. Accept all answers.

One – Ask the players to select the card which best describes A PLACE WHERE STARS FORM; a stellar nursery. Ask them about their choices, helping them to select Card #1, and place it on the table in the direction of EAST. Help them to notice that the scene in Card #1 is predominantly “disorganized;” that nothing is taking shape just yet. Point out that the image on Card #1 was taken by the NASA Hubble Space Telescope.

Two – Ask the players next to select the card which best describes the scene when a star is BEGINNING TO FORM. Ask them about their choices, helping them to select Card #2, placing it in the direction of SOUTH. Help them to notice that the forms and shapes in Card #2 are coalescing, or coming together. Point out that the image on Card #2 is an artist's rendition of the process of star formation. Scientists cannot currently directly observe this process at this level of detail, so an artistic interpretation of theory and data is necessary.

Three – Ask the players to select the card which best describes an image of a star at MATURITY. Ask them about their choices, helping them to select Card #3, placing it in the direction of WEST. Help them to notice that there are no shapeless clouds in the image; that the sphere has a distinct and discreet shape. Point out that this is an image of our Sun, taken with the NASA SOHO (Solar and Heliospheric Observatory) Telescope.

EXTRA ACTIVITY – Ask the players what is happening within the fiery core of a mature star. Explain that the temperature is so high, and the pressure is so great, that the star is actually fusing materials together to form bigger, heavier material. Have the students place their two forefingers together, touching at the tips. Have them (carefully) push their fingertips together with all their might, and imagine that if they pushed hard enough, their two separate fingers would become one. Explain that the heavier materials formed by the star in this way are actually elements such as carbon, nitrogen, and oxygen which is the “stuff” we humans are made of.

Four – Place the remaining card in the direction of NORTH. Ask the players what they see in the remaining card, Card #4. Help them to notice that there is motion and movement again in the shapes. Ask them what they think this represents, helping them to see an explosive, outward energy. Explain that this is an image of a supernova remnant called CassA, taken with the NASA Chandra X-Ray Observatory Telescope and so named because of its proximity to the constellation Cassiopeia.



Explain that when a star “goes supernova,” it expels all the materials it created within its core during its mature phase into the surrounding space, providing the raw materials for the next generation of stars to form, and possibly planets, and possibly LIFE!

EXTRA ACTIVITY – Refer to the provided Stellar Evolution Poster (small version is provided – for larger version, download here: http://chandra.harvard.edu/edu/formal/stellar_ev/). Explain that, depending on their size, stars have different fates. Larger mass stars explode in supernova events, whereas lower mass stars will puff up into Red Giants, or turn into White Dwarfs.

Finish Part One – Put the Star Cycle cards aside for now, and tell the players they will revisit them, but are now going to explore a Navajo creation story.

PART TWO – The Navajo Cards

First, place the **Ni’hodilhil Card** on the table. Ask each player to describe and explain what they see. Accept all answers, including light, color, energy, clouds, etc. Tell the first part of *Da’hadiiniisá / The Beginning Story* (below). When the story refers to “a gaseous, foggy substance,” and “dark mist, moisture, and light,” point to the image. When you have finished reading this section of the story, explain that this is an image of the Orion nebula taken by the NASA Hubble Space Telescope, and illustrates this part of the story well. A nebula is an expansive region in space made up of a large cloud of dust and gas. Star and planetary systems often form within nebulae.

Da’hadiiniisá / The Beginning

Hájjínéíi hané begins with the understanding that *Ni’naakits’áadah Honíká* is where the *Nilch’í Diyin Dine’é*, Spirit People, come from. The First World, *Ni’hodilhil*, the Black World, is told the beginning. *Ni’hodilhil*, as perceived by carrier and guardian of medicine bundles, means there was not a world yet, only endless darkness existed. There were, yet, no light, water, air, or surface. Traditional storytellers tell of a mist like substance (a gaseous foggy substance) formed in the atmosphere and in the heaven and was the beginning.

Within the center of the atmosphere, *Ni’hodilhil*, dark mist, moisture and light gathered and formed clouds. This became the Divine *Nilch’í Diyinii*, *Yah’alni’neeyání*, the mysterious power. This Holy One, *Nilch’í Diyinii*, *Yah’alni’neeyání* is characterized to be of Crystal Spirit and the Holy Wind (air). The Holy One possessing a female and male character strength (power) and is referred to as *Sáah Naaghái Bik’eh Hózhóón*.

Next, making sure to align black with North, place the **Color Wheel Card** on top of the *Ni’hodilhil* card, and ask the players to identify what they see. Ask each player if they are familiar with the four directions. Ask if they can describe essential properties or qualities in each one. Ask if they know how those qualities were formed or assigned. Pass out the **4 Directions Cards**, and ask the players to place them next to the appropriate color on the color wheel (white = East, blue = South, yellow = West, black = North).

Explain that the story goes on to describe how all things were brought about all things, according to and within the four sacred directions.

Read the passage from the story below. When you are finished, hand the players the **4 Gems Cards** and ask them to place each card next to the position on the color wheel where it belongs. White Shell with white, Turquoise with blue, Abalone Shell with yellow, and Obsidian/Jet with black.

With this power, surface formed. White shell, turquoise, abalone shell and obsidian formed the surface, land (earth substance). Next, words were heard and languages were identified. It is believed that various gems formed the languages, words, sounds uttered by the *Yah'alnii'neeyání*.

Read aloud the next passage from the story below. When you are finished, pass out the **4 Winds Cards** to the players and ask them to place each card next to the position on the color wheel where it belongs. Because the interaction of wind with Earth's surface helps to shape mountains, next pass out the **4 Sacred Mountains Cards**, and ask them to place those around the wheel as well.

Ni'hodilhil / Black World

Within the Black World, *Yah'alnii'neeyání* was very much alone and lonely, so he used the intelligence that he possessed to bring forth four elements. He spoke with the spirit of the white shell language and brought forth light and placed it within the eastern direction. He spoke with the spirit of the turquoise language and brought forth moisture and placed it within the southern direction. He spoke with the spirit of the abalone shell language and brought forth four types of air (wind) and he placed them within the western direction. *Yah'alnii'neeyání* spoke the language of the obsidian and pollen formed which became the dirt substance and he placed it within the northern direction. Later, he placed wind within the four directions; to the east he placed the white wind; to the south the blue wind; to the west the yellow wind; and to the north the black wind.

Read aloud the following passages which go into detail about the essential “properties” of each direction. As you read the section describing each direction, distribute the **Houses Card** that corresponds to that direction and ask the players to place that card in the appropriate place.

It is said, *Yah'alnii'neeyání* brought forth Dawn and placed life and light into it and placed it with the eastern direction. Spirits of Dawn, *Hayool káál At'ééd dóó Hayool káál Ashkii* were identified and placed within the eastern direction. Their purposes were to provide direction to the lives of the earth surface living beings and means by which they will travel, *gáál*. Within the House of Dawn *Hayool káál Beehooghan*, *Yah'alnii'neeyání* placed the Crystal Light. By the aid of Crystal Light the earth surface beings will be capable of developing the ability to process thinking, forming ideas, to be inquisitive and a need to know, *Nitsáhákees*.

Yah'alnii'neeyání brought forth Blue Twilight, *Nihodeetl'iizh At'ééd dóó Nihodeetl'iizh Ashkii* and he placed them within the southern direction in the House of Blue Twilight, *Nihodeetl'iizh Beehooghan*. It was part of the great plan for earth surface people to develop knowledge by which to construct plans for living from one generation to the next. This is referred to as *Nahat'á álya'*. *Yah'alnii'neeyání* brought forth Yellow Evening Twilight, *Nihootsooi At'ééd dóó Nihootsooi Ashkii* for the western direction and placed *áhó'ni* for social development and family unity in the House of Yellow Evening Twilight *Nihodeetl'iizh Beehooghan*.

Yah'alnii'neeyání brought forth Folding Darkness, *Cha'halheel At'ééd dóó Cha'halheel Ashkii* for the northern direction and placed life, home and rest within the House of Darkness, *Cha'halheel Beehooghan*. *Yah'alnii'neeyání* also placed development of awareness and protection within the House of Darkness.

Read aloud the following passage. When you have finished, pass out the **4 Seasons Cards**, and ask the players to place them accordingly – Spring = East, Summer = South, Autumn = West, Winter = North.

With all the elements and the power of the four directions in place, *Yah'alnii'neeyání* brought forth four types of moist substances, *Nilch'i ligai*, *Nilch'i doolizh*, *Nilch'i litso*, and *Nilch'i dilbil* and placed them within the four directional clouds. It is told by the elder the four types of moisture impacts the four seasons, *Daago*, *Shitgo*, *A'ak'éédgo*, *dóó Haigo*.

Read aloud the following passage. As you go along in the story and say the name of each Spiritual One, distribute the corresponding card, and ask the players to place the **Spiritual Ones Card** in the appropriate direction. See if they can predict where each card will go before they hear it in the story.

Yah'alnii'neeyání still very much alone and lonely, created four Spiritual Ones from the same power from which he, himself, had come. One Formed at the Center of Heavens, *Yah'alnii'neeyání* brought forth, *Haashch'ééyáálti'i*, First Talking God, and was assigned to oversee the activities to the eastern direction. *Bee'ohchíídí*, the Spirit for Growth, was brought forth and assigned to oversee activities to the southern direction. *Haashch'ééwaan*, the Spirit for Home, was brought forth and assigned to oversee activities in the western direction. *Haashch'ééhzhíní*, the Spirit of Darkness, was brought forth and assigned to oversee activities to the northern direction.

Read the following, final passage aloud. See if the players can fill in the words “Father Sky” and “Mother Earth” before you say them. When you have finished, give the players the **Father Sky and Mother Earth Cards**. Allow them to place the cards on the table with the other cards without too much direction. Many have placed the Mother Earth card in the very center of the pattern, and the Father Sky card can “float” above the table, as well as below it, signifying the surrounding presence of Father Sky.

Yah'alnii'neeyání, his helpers *Haashch'éé Din'éé*, the four elements and the four winds gathered and constructed a plan for creation. They used their powers to create *Yá'bii'astíín*, Within Upper Creation Spirit, which became known as Father Sky. He was assigned to oversee all activities and control the functions of the upper creation. The Spiritual Ones gathered again and decided to create a counterpart for the upper creation, *Nahasdzáán Bii'astíín*, Within the Lower Creation Spirit. They created Mother Earth to control and oversee all activities in the lower creations. *Yá'bii'astíín* and *Nahasdzáán Bii'astíín* are known to breathe, think, talk and are all knowing as they control the balance of the creation. They constantly coordinate, cooperate, collaborate, and communicate through the elements of their being.

To Finish Part Two, have a brief discussion with the players about the essential properties, or meanings of each direction. Bring in other elements to relate to the four directions such as time of day (morning, noon, evening, night), or a human life cycle (birth, growth, maturity, death).

PART THREE – Bringing The Two Parts Together

Leaving the Navajo cards on the table as they are, bring out the Star Cycle cards again. Display them or hand them out to the players. Ask them to place each one in one of the four directions, and to explain why they chose the placements they made.

If needed, help them to place Card #1 in the EAST, because the image represents a stellar nursery; a place where the conditions are right for stars to form. Help them to place Card #2 in the SOUTH, because the image represents a star forming. Help them to place Card #3 in the WEST, because the image represents a fully mature star. Finally, help them to place Card #4 in the NORTH, because the image represents a star dying, and recycling its contents back into space as raw material from which the next generation of stars can form.

Emphasize the circular, cyclical nature of the stellar life cycle pattern, and how each stage of a star's "life" relates to the essential properties and teachings of each of the four sacred directions explored in the Navajo story.

Background

SCIENTIFIC BACKGROUND

Star Formation: Throughout the universe, stars form, mature (often with planetary systems), and then die. In so doing, the star can recycle the materials created within it back into space. Stars form in regions of space called nebulae, where the raw material and conditions necessary for formation are present. The concept of star formation begins with diffuse material in clouds of **gases** such as carbon monoxide, hydrogen, and helium, **dust** meaning small rocky particles such as silicates (like beach sand), minerals such as olivine, and organic (carbon-containing) particles like charcoal dust, and **ices** such as water ice. The particulate matter and gases have a random motion. A pressure blast, or "wind" such as the radiation produced from a nearby dying star (supernova) can cause the diffuse material to begin to coalesce and increase in density at certain points which will eventually become discreet stars. A small, growing star is surrounded by a circumstellar disk of spinning dust and gas – like a music CD or a Frisbee, with the young star in the center. Through a process called accretion, the material will condense further. The more mass it gains and the larger it gets, the more material will be attracted to it. In this way, it gains even more mass and gets even larger. Please refer to the film for a visual explanation of this.

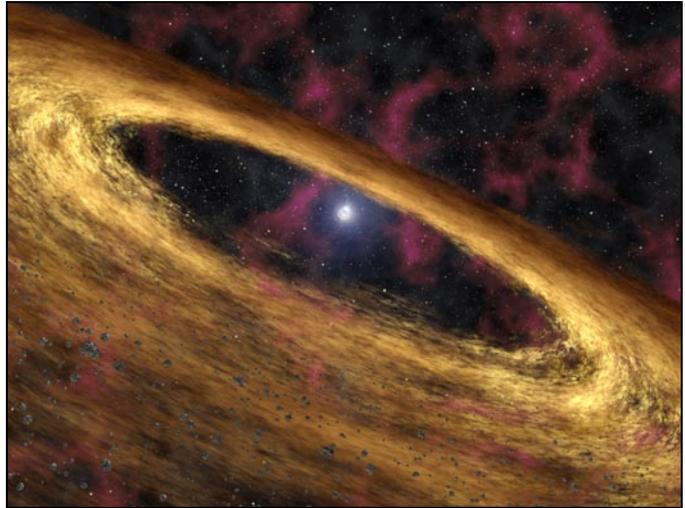


Chaotic Star Birth
NASA/JPL-Caltech/R. A. Gutermuth
(Harvard-Smithsonian CfA)

Planetary System Formation: Often, depending on radiation conditions in the local nebula (star forming) environment, the contents of the spinning circumstellar disk can give rise to a planetary system in which discreet bodies – planets – orbit the star in the center. Depending on the elements that were present and available during the formation of the star and planets, the planets that form can be gaseous like Jupiter, or rocky like Mars. Solar systems, much like our own Solar System, can and do form. Scientists have observed many different kinds of systems in our local galactic neighborhood, with unusual planet types such as "Hot Jupiters," and "Pulsar Planets." These strange planets are orbiting other types of stars as well, different from our Sun. As we know from our own experience on Earth, life can form on planets! Is there life on the other planets that we've observed in space?

Nuclear Fusion Within a Star and Stellar Maturity:

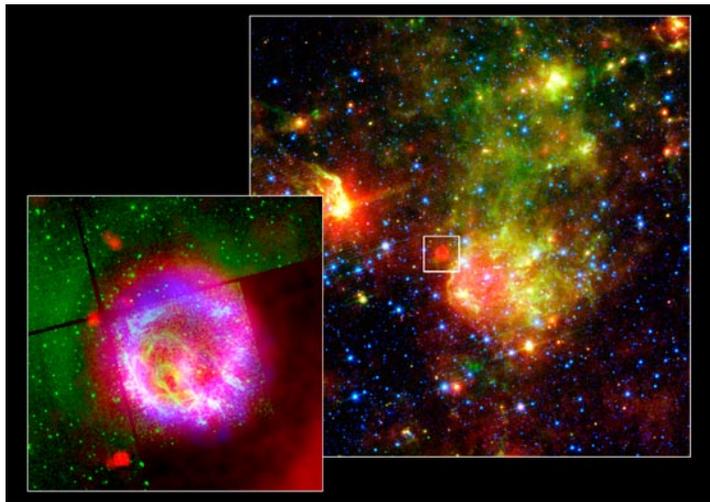
As a star continues to form, temperature and pressure slowly increase until the center of the star reaches 15 million degrees Celsius, and the nuclei of the atoms begin to fuse. The intense pressure causes hydrogen atoms to fuse into heavier helium atoms. This process gives off tremendous amounts of energy which we observe as light and heat. As stars grow older, they exhaust their supply of hydrogen. The energy released from fusion is no longer enough to counteract the inward force of gravity, and the star's core collapses, increasing pressure and temperature there, eventually up to 100 million degrees Celsius. This new pressure causes helium atoms to then fuse into heavier elements like carbon, nitrogen, and oxygen which are elements essential to life as we know it. Large stars with higher pressures can keep the fusion going and create even heavier elements like calcium, aluminum, magnesium, sulfur, cobalt, nickel, and iron. Sun-sized stars that are in this phase of creating newer, heavier elements "puff up" into Red Giants which eventually "swallow" many of the planets surrounding them.



Stellar Rubble May Be Planetary Building Blocks
NASA/JPL-Caltech/R. Hurt (SSC)

Stellar Death and Recycling of Elements:

Depending on size and mass, stars can have different fates. Very small stars will stay much as they were. Stars like the Sun will "puff up" into Red Giants, and then move from the Red Giant phase into planetary nebulae, where new stars can potentially form. Very large stars will explode in supernovae. This powerful, explosive event provides the energy to create even heavier elements such as gold and titanium. The supernova event distributes all these elements back into space, including the ones made within the star during its lifetime, to one day be incorporated into new stars, new planetary systems, and maybe new life. Refer to the NASA Chandra Stellar Evolution Poster provided in this activity for a visual explanation of the different fates of stars:



Dusty Death of a Massive Star NASA/JPL-Caltech/S. Stanimirovic (UC Berkeley)

http://chandra.harvard.edu/edu/formal/stellar_ev/

Da'hadiiniisá / The Beginning

From

Amá Sani dóó Achei Baahané

Grandmother and Grandfather Stories

Produced by the Office of Diné Culture, Language, and Community Services

Hájiínéíi hané begins with the understanding that Ni'naakits'áadah Honíká is where the Nilch'í Diyin Dine'é, Spirit People, come from. The First World, Ni'hodilhil, the Black World is told the beginning, Ni'hodilhil, as perceived by carrier and guardian of medicine bundles, means there was not a world yet, only endless darkness existed. There were, yet, no light, water, air, or surface. Traditional storytellers tell of a mist like substance (a gaseous foggy substance) formed in the atmosphere and in the heaven and was the beginning.

Within the center of the atmosphere, Ni'hodilhil, dark mist, moisture and light gathered and formed clouds. This became the Divine Nilch'í Diyinií, Yah'alnií'neeyání, the mysterious power. This Holy One, Nilch'í Diyinií, Yah'alnií'neeyání is characterized to be of Crystal Spirit and the Holy Wind (air). The Holy One possessing a female and male character strength (power) and is referred to as Sa'ah Naaghái Bik'eh Hózhóón. With this power, surface formed. White shell, turquoise, abalone shell and obsidian formed the surface, land (earth substance). Next, words were heard and languages were identified. It is believed that various gems formed the languages, words, sounds uttered by the Yah'alnií'neeyání.

Ni'hodilhil / Black World

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the earth surface living beings and means by which they will travel, gáál. Within the House of Dawn Hayool káál Beehooghan. Yah'alnii'neeyání placed the Crystal Light. By the aid of Crystal Light the earth surface beings will be capable of developing the ability to process thinking, forming ideas, to be inquisitive and a need to know. Nitsáhákees. Yah'alnii'neeyání brought forth Blue Twilight, Nihodeet'iizh At'ééd dóó Nihodeet'iizh Ashkii and he placed them within the southern direction in the House of Blue Twilight, Nihodeet'iizh Beehooghan. It was part of the great plan for earth surface people to develop knowledge by which to construct plans for living from one generation to the next. This is referred to as Nahat'á álya. Yah'alnii'neeyání brought forth Yellow Evening Twilight, Nihootsooi At'ééd dóó Nihootsooi Ashkii for the western direction and placed áhó'ní for social development and family unity in the House of Yellow Evening Twilight Nihodeet'iizh Beehooghan. Yah'alnii'neeyání brought forth Folding Darkness, Cha'halheel At'ééd dóó Cha'halheel Ashkii for the northern direction and placed life, home and rest within the House of Darkness, Cha'halheel Beehooghan. Yah'alnii'neeyání also placed development of awareness and protection within the House of Darkness. With all the elements and the power of the four directions in place, Yah'alnii'neeyání brought forth four types of moist substances, Nilch'í ligai, Nilch'í doolizh, Nilch'í litso, and Nilch'í dilhil and placed them within the four directional clouds. It is told by the elder the four types of moisture impacts the four seasons, Daago, Shíigo, A'ak'éédgo, dóó Haigo.

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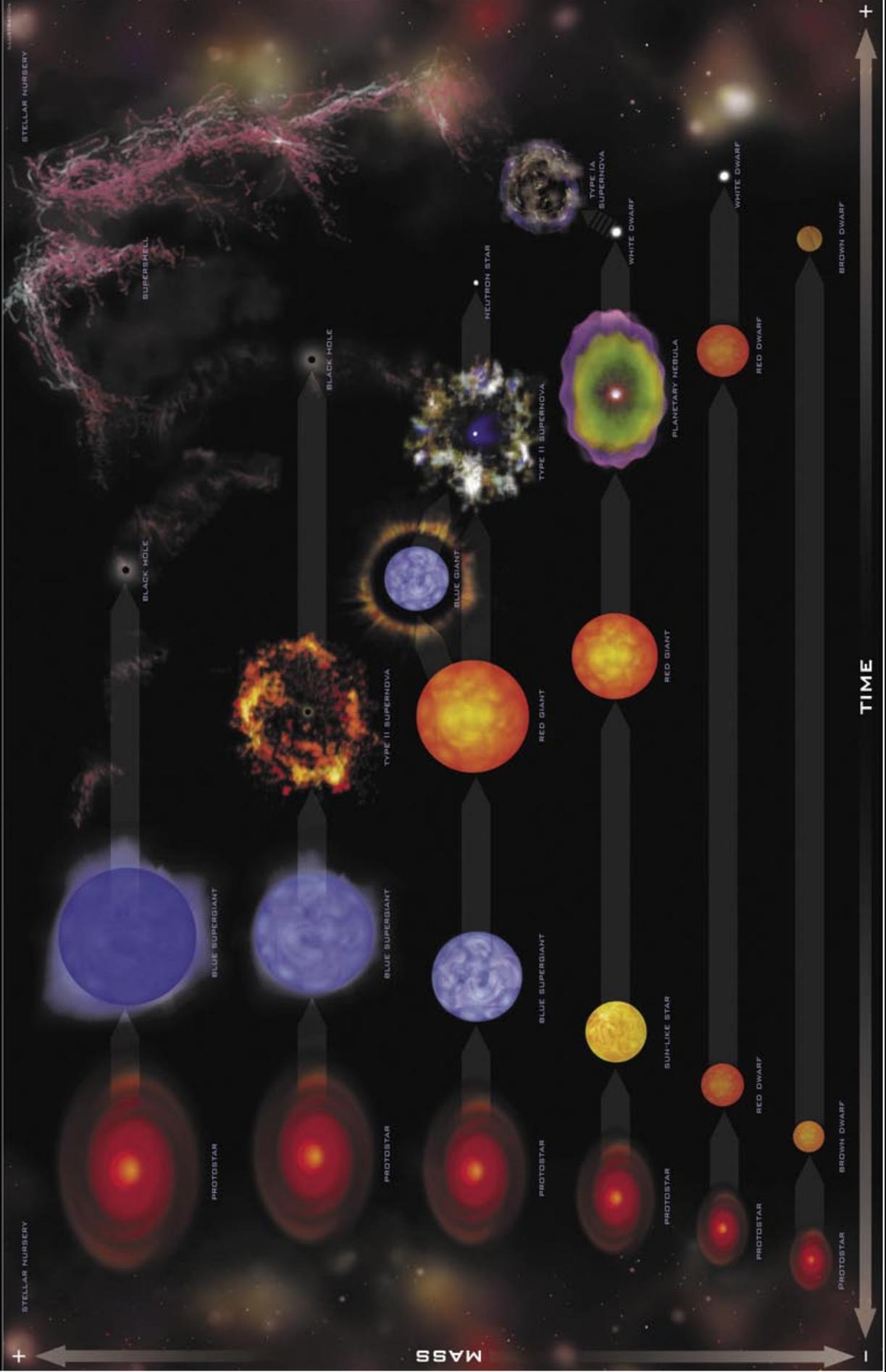
Graphics

The following pages contain the provided graphics for this activity:

- Stellar Evolution Poster
- Star Cycle Cards (4 cards)
- Ni'hodillhil / Color Wheel Card Set (2 cards)
- Directions Cards (4 cards)
- Gems Cards (4 cards)
- Winds Cards (4 cards)
- Sacred Mountains Cards (4 cards)
- Houses Cards (4 cards)
- Seasons Cards (4 cards)
- Spiritual Ones Cards (4 cards)
- Mother Earth / Father Sky Card Set (2 cards)



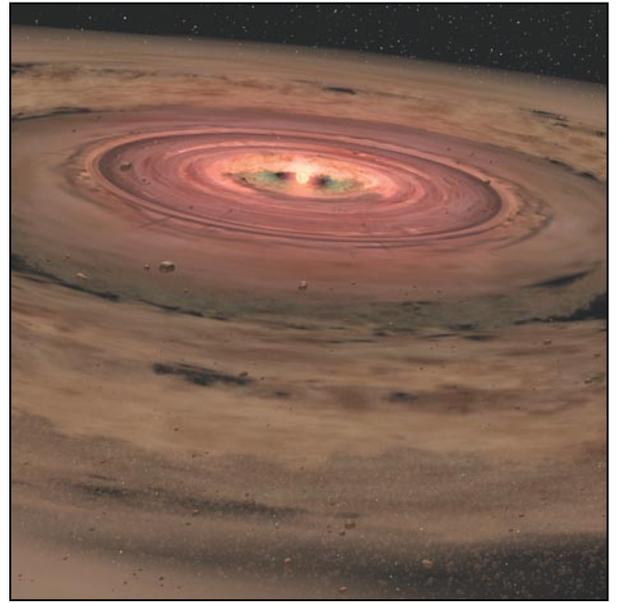
STELLAR EVOLUTION: A JOURNEY WITH CHANDRA





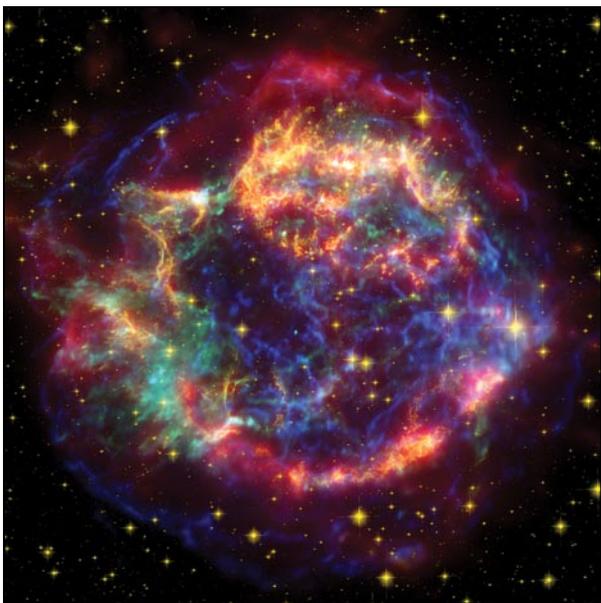
Credit: NASA, ESA, and The Hubble Heritage Team (STScI/AURA)

STAR CYCLE



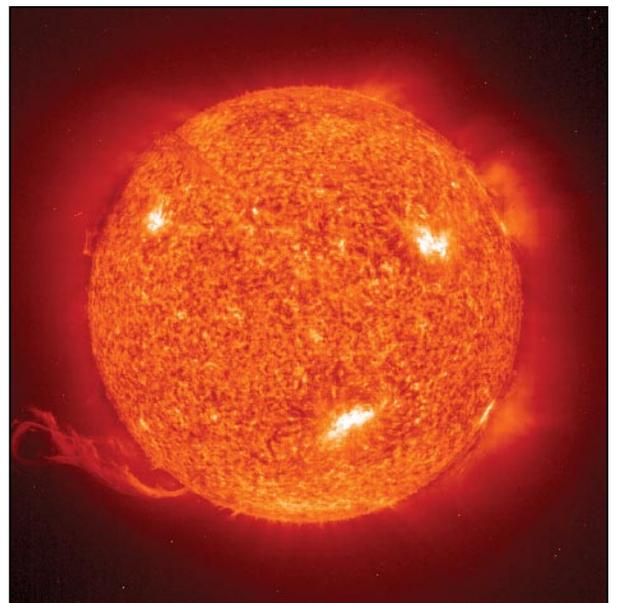
Credit: NASA/JPL-Caltech/T. Pyle (SSC)

STAR CYCLE



Credit: NASA/JPL-Caltech/O. Krause (Steward Observatory)

STAR CYCLE



Credit: NASA/SOHO

STAR CYCLE

2

A Star Forms

This artist's concept shows a brown dwarf surrounded by a swirling disk of planet-building dust. NASA's Spitzer Space Telescope spotted such a disk around a surprisingly low-mass brown dwarf, or "failed star." The brown dwarf, called OTS 44, is only 15 times the size of Jupiter, making it the smallest brown dwarf known to host a planet-forming, or protoplanetary disk.

STAR CYCLE

1

Before a Star Forms

Close inspection of the 2006 Hubble Space Telescope color mosaic of the Orion Nebula (M42) reveals numerous treasures that reside within the nearby, intense star-forming region. Deeply contrasting areas of light and dark blend with a palette of colors to form rich swirls and fluid motions that would make even the best artists stand back in admiration.

STAR CYCLE

3

A Mature Star

This image of the Sun, taken by NASA's Solar and Heliospheric Observatory on Sept. 14, 1999, features a huge, handle-shaped prominence. Prominences are huge clouds of relatively cool dense plasma suspended in the Sun's hot, thin corona. At times, they can erupt, escaping the Sun's atmosphere. In this image, the Sun's upper chromosphere is at a temperature of about 60,000 degrees K.

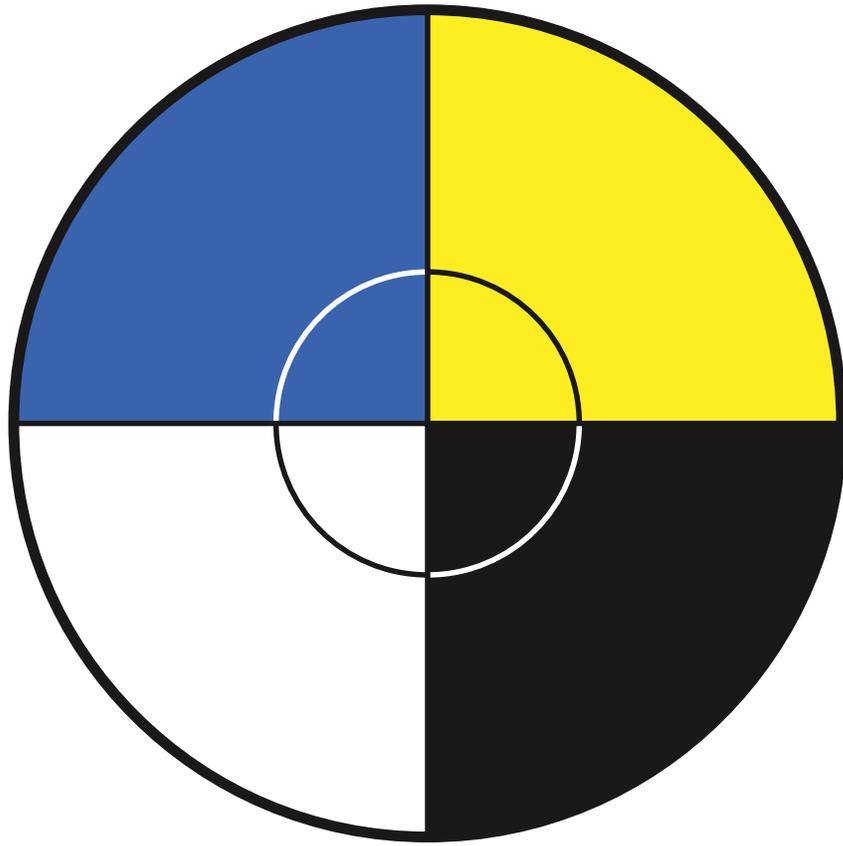
STAR CYCLE

4

A Star Dies

This stunning false-color picture shows off the many sides of the supernova remnant Cassiopeia A. It is made up of images taken by three of NASA's Great Observatories, using three different wavebands of light. Infrared data from the Spitzer Space Telescope are colored red; visible data from the Hubble Space Telescope are yellow; and X-ray data from the Chandra X-ray Observatory are green and blue.

STAR CYCLE



So' ba hane'—Story of the Stars

Navajo Color Wheel

So' ba hane'—Story of the Stars

Black World **Ni'hodilhil**

Image of the Orion Nebula
From the NASA Hubble Space Telescope

East

Ha'a'aah

DIRECTIONS

South

Shadi'aah

DIRECTIONS

North

Nahookos

DIRECTIONS

West

E'e'aah

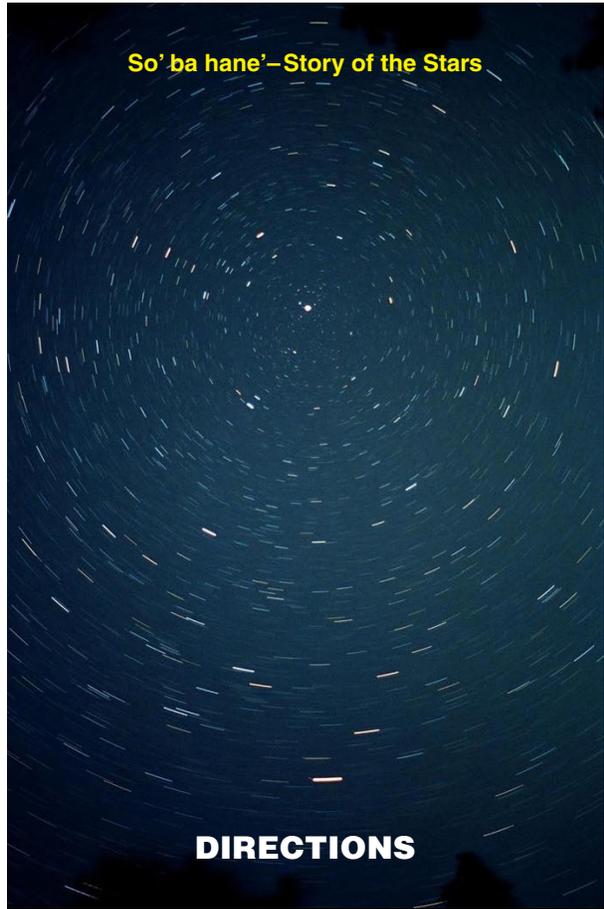
DIRECTIONS

So' ba hane'—Story of the Stars



DIRECTIONS

So' ba hane'—Story of the Stars



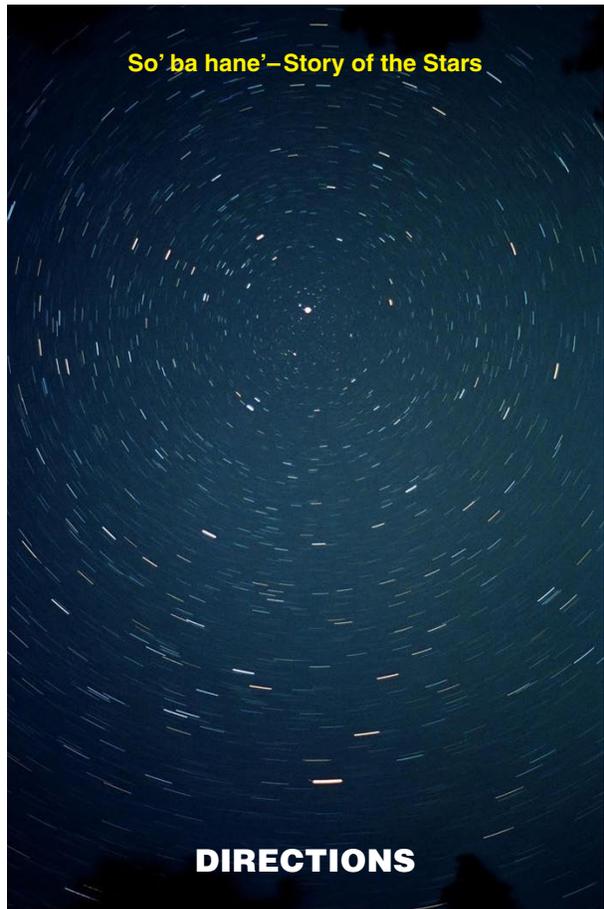
DIRECTIONS

So' ba hane'—Story of the Stars

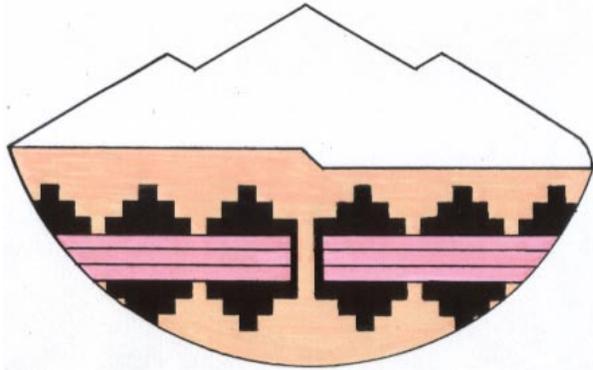


DIRECTIONS

So' ba hane'—Story of the Stars

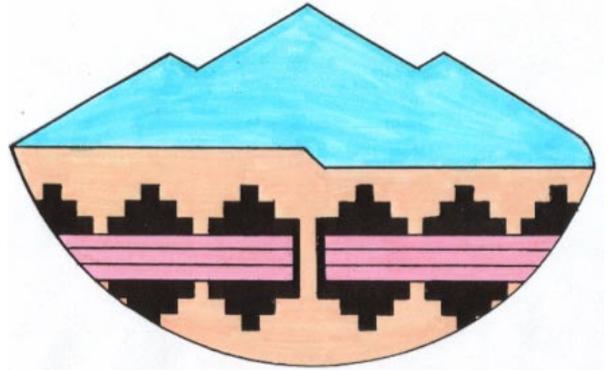


DIRECTIONS



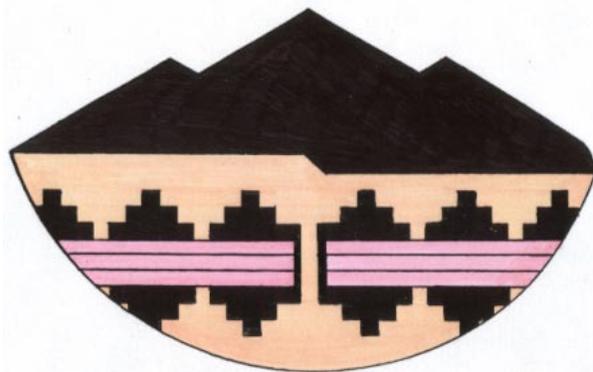
Jersey Nelson

GEMS



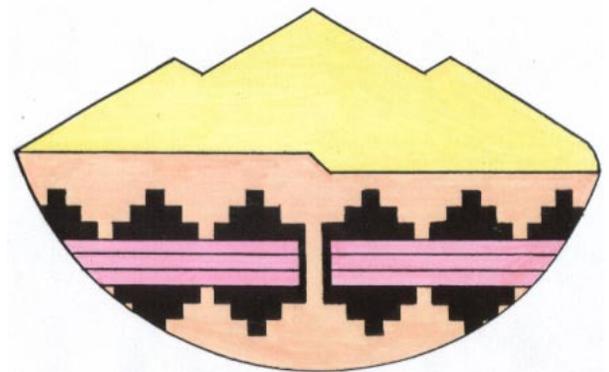
Jersey Nelson

GEMS



Jersey Nelson

GEMS



Jersey Nelson

GEMS

So' ba hane'—Story of the Stars

Turquoise

GEMS

So' ba hane'—Story of the Stars

White Shell

GEMS

So' ba hane'—Story of the Stars

Abalone

GEMS

So' ba hane'—Story of the Stars

Jet/Obsidian

GEMS



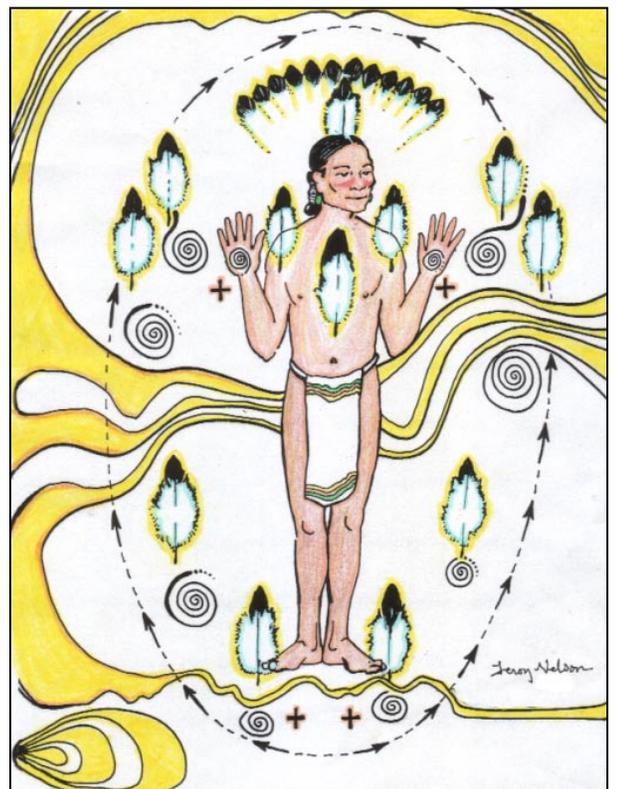
WINDS



WINDS



WINDS



WINDS

So' ba hane'—Story of the Stars

Blue Wind

WINDS

So' ba hane'—Story of the Stars

White Wind

WINDS

So' ba hane'—Story of the Stars

Yellow Wind

WINDS

So' ba hane'—Story of the Stars

Black Wind

WINDS



SACRED MOUNTAINS



SACRED MOUNTAINS



SACRED MOUNTAINS



SACRED MOUNTAINS

So' ba hane'—Story of the Stars

Mount Taylor,
New Mexico

Tsoodzil

SACRED MOUNTAINS

So' ba hane'—Story of the Stars

Sierra Blanca Peak,
Colorado

**Sis Naajini,
Tsis Naajini**

SACRED MOUNTAINS

So' ba hane'—Story of the Stars

San Francisco Peak,
Arizona

Dook'o'oosliid

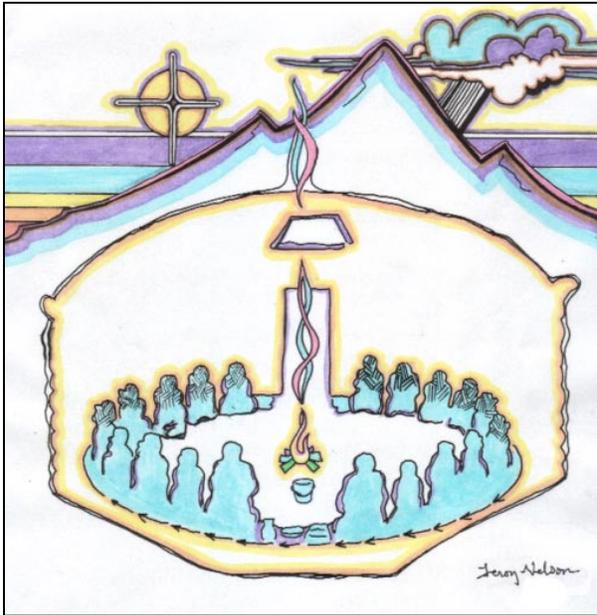
SACRED MOUNTAINS

So' ba hane'—Story of the Stars

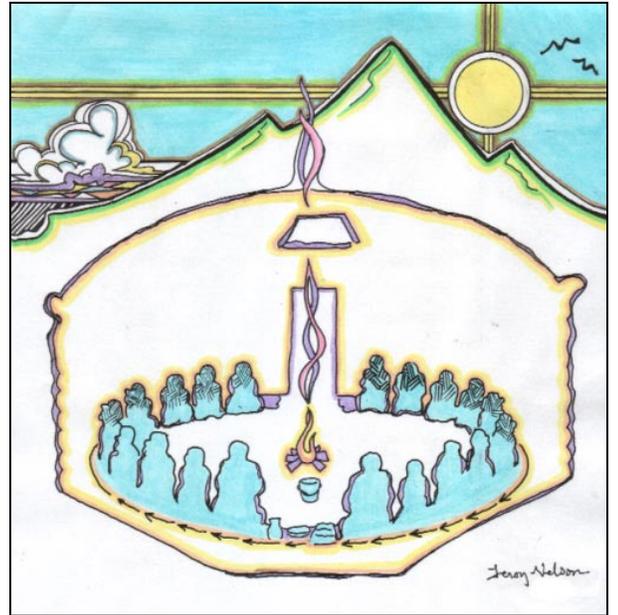
La Plata Mountains,
Colorado

Dibe Ntsaa

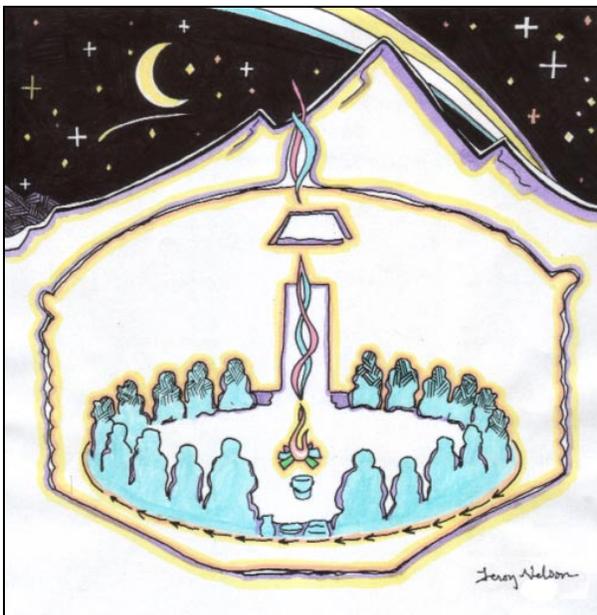
SACRED MOUNTAINS



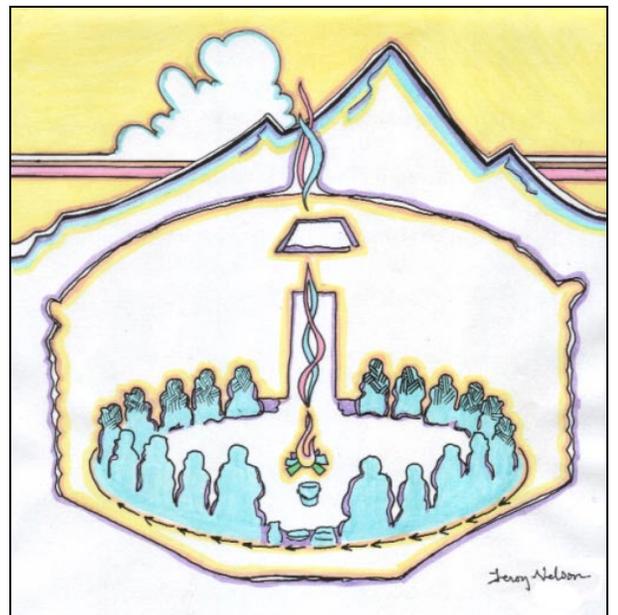
HOUSES



HOUSES



HOUSES



HOUSES

So' ba hane'—Story of the Stars

House of Blue Twilight

Nihodeet'iizh
Beehooghan

HOUSES

So' ba hane'—Story of the Stars

House of Dawn

Hayool káál
Beehooghan

HOUSES

So' ba hane'—Story of the Stars

House of Yellow Evening Twilight

Nihodeet'iizh
Beehooghan

HOUSES

So' ba hane'—Story of the Stars

House of Darkness

Cha'halheel
Beehooghan

HOUSES

Spring

Daan

SEASONS

Summer

Shí

SEASONS

Winter

Hai

SEASONS

Autumn

Aak'eed

SEASONS

So' ba hane'—Story of the Stars

SEASONS

First Talking God

Haashch'éeýáálti'í

SPIRITUAL ONES

Spirit for Growth

Bee'ohchíídí

SPIRITUAL ONES

Spirit of Darkness

Haashch'éeézhíní

SPIRITUAL ONES

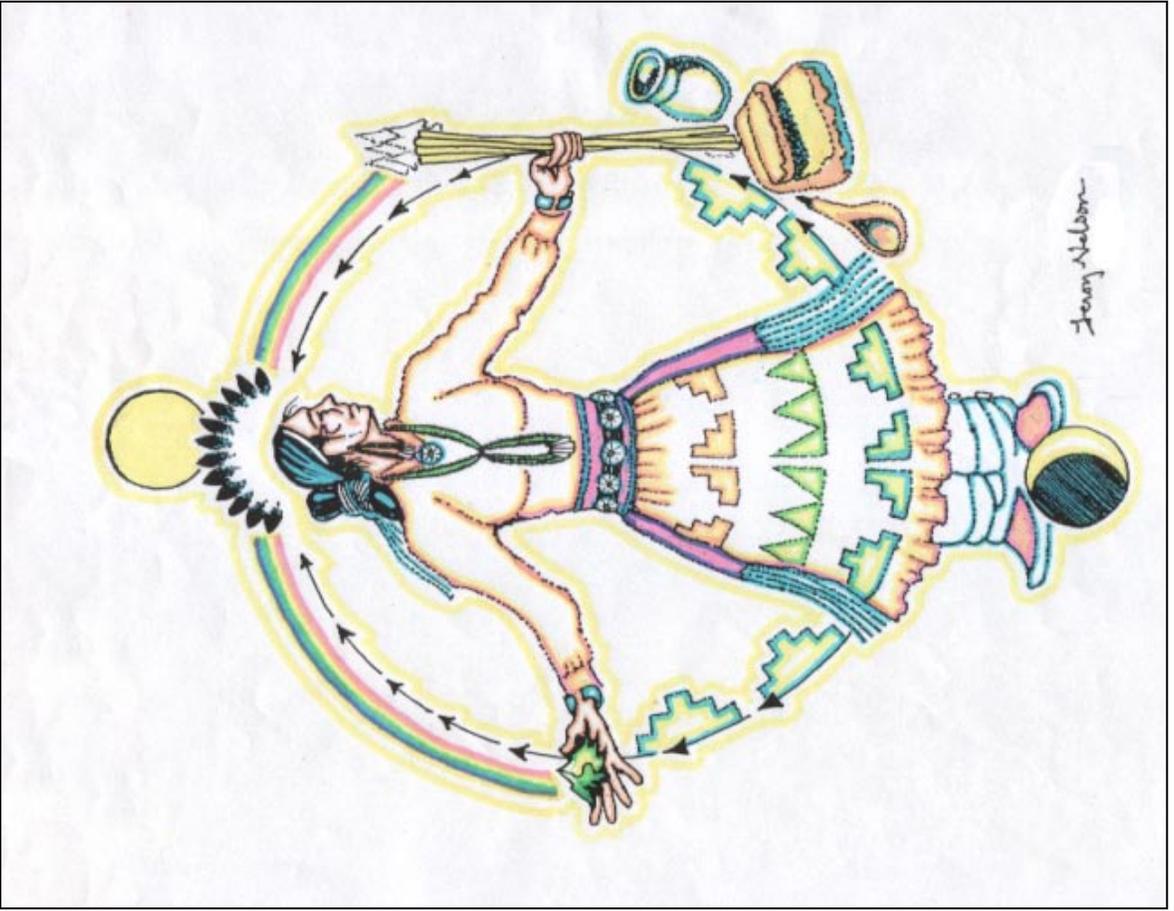
Spirit for Home

Haashch'éeéwaan

SPIRITUAL ONES

So' ba hane'—Story of the Stars

SPIRITUAL ONES



A long-exposure photograph of a starry night sky, showing numerous stars as short, curved white lines (star trails) against a dark blue background. The trails are centered around a bright star in the upper right quadrant.

So' ba hane'—Story of the Stars

Mother Earth

Nahasdzáán
Bii'astíín

A long-exposure photograph of a starry night sky, showing numerous stars as short, curved white lines (star trails) against a dark blue background. The trails are centered around a bright star in the upper right quadrant.

So' ba hane'—Story of the Stars

Father Sky

Ya'Bii'astíín